

CLAIMS

What is claimed is:

- 1 1. An integrated circuit chip comprising:
 - 2 a logic core;
 - 3 a plurality of insulating and conducting levels above said core;
 - 4 an exterior conductor level above said insulating and conducting levels; and
 - 5 passive devices comprising a conductive polymer directly connected to said exterior
 - 6 conductor level.
- 1 2. The integrated circuit chip in claim 1, wherein said passive devices comprise RF devices.
- 1 3. The integrated circuit chip in claim 1, wherein said passive devices comprise at least one
2 of resistors, capacitors, and inductors.
- 1 4. The integrated circuit chip in claim 3, wherein said resistors comprise serpentine
2 resistors.
- 1 5. The integrated circuit chip in claim 3, wherein said capacitors comprise interdigitated
2 capacitors.

1 6. An integrated circuit chip comprising:
2 a logic core;
3 a plurality of insulating and conducting levels above said core;
4 an exterior conductor level above said insulating and conducting levels;
5 passive devices comprising a conductive polymer directly connected to said exterior
6 conductor level; and
7 a substrate connected to said passive devices on a side of said passive devices opposite
8 from said exterior conductor level.

1 7. The integrated circuit chip in claim 6, wherein said passive devices comprise RF devices.

1 8. The integrated circuit chip in claim 6, wherein said passive devices comprise at least one
2 of resistors, capacitors, and inductors.

1 9. The integrated circuit chip in claim 8, wherein said resistors comprise serpentine
2 resistors.

1 10. The integrated circuit chip in claim 8, wherein said capacitors comprise interdigitated
2 capacitors.

1 11. A method of manufacturing an integrated circuit chip structure comprising:
2 supplying an integrated circuit chip; and
3 patterning a conductive polymer on an exterior of said integrated circuit chip,
4 wherein said patterning produces passive devices.

1 12. The method in claim 11, wherein said passive devices comprise RF devices.

1 13. The method in claim 11, wherein said passive devices comprise at least one of resistors,
2 capacitors, and inductors.

1 14. The method in claim 13, wherein said resistors comprise serpentine resistors.

1 15. The method in claim 13, wherein said capacitors comprise interdigitated capacitors.

1 16. A method of manufacturing an integrated circuit chip structure comprising:
2 patterning a conductive polymer on a substrate; and
3 bonding said patterned conductive polymer to an integrated circuit chip,
4 wherein said patterning produces passive devices.

1 17. The method in claim 16, wherein said passive devices comprise RF devices.

1 18. The method in claim 16, wherein, said passive devices comprise at least one of resistors,
2 capacitors, and inductors.

1 19. The method in claim 18, wherein said resistors comprise serpentine resistors.

1 20. The method in claim 18, wherein said capacitors comprise interdigitated capacitors.